Tele SAFE Telemetry Stewardship & Alarm-Fatigue rEduction

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Can an explainable-AI model safely flag low-risk telemetry patients for earlier discontinuation without increasing adverse cardiac events?

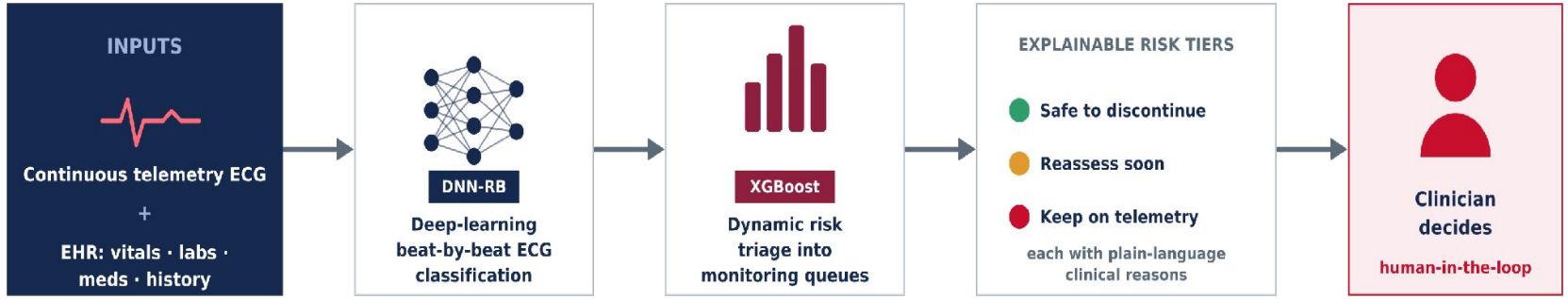
43% of tele orders lack an AHA-recommended indication [1]

76% of monitoring days are inappropriate vs. AHA standards [2]

80–99% of alarms are false or non-actionable, driving alarm fatigue [3]

$528K recoverable per year from inappropriate tele days [5]

Retrospective cohort: Apr 2016 to Apr 2026, reported to TRIPOD+AI [7,8,9,10]



≥17% decrease telemetry duration [6]

80% decrease false alarms [3]

high NPV no rise in adverse events

The bottleneck is often invisible.

Our direction shifted the day our PI mentioned his inbox was full of “all beds full” emails. With only 42 telemetry licenses at TGH, the real constraint was upstream, *not* with the front-line physicians everyone watches.

Answers hide in gray literature.

We interviewed nurses, managers and PAs, and contacted several cardiology-AI groups to sanity-check our approach. Many of the best solutions aren’t published yet. A lot lives in gray literature and with the people currently building them.

REFERENCES

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